

ATTACHMENT C

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) ~~Method~~ A method for cutting and removing an underwater pipelines pipeline, the method comprising the following steps:

- a) determining the position of the underwater pipeline ~~(40)~~ to be removed;
- b) positioning, on the ~~said line~~ pipeline, guiding means ~~(2)~~ for positioning cutting means ~~(4)~~ and recovery means ~~(3)~~ for recovering the cut pipe sections, said guiding means ~~(2)~~ being able to be repositioned along said ~~line (40)~~ pipeline and being stably connected to a boat ~~(10)~~ intended to collect the recovered sections of cut pipe;
- c) guided positioning of the cutting means ~~(4)~~ and guided positioning of the recovery means ~~(3)~~;
- d) ~~cutting of the~~ a pipe section of predetermined length;
- e) ~~removal of said section by means of~~ removing the pipe section using said recovery means ~~(3)~~;
- f) ~~transfer of~~ transferring the pipe section ~~recovered by said recovery means~~ to said boat ~~(10)~~;
- g) ~~repositioning of the guiding means (2) along the~~ a remaining ~~line~~ pipeline portion to be removed and ~~repetition of the preceding repeating~~ steps c) to f) until the underwater pipeline ~~(40)~~ has been completely removed.

2. (Currently Amended) ~~Apparatus~~ An apparatus for implementing the method for cutting and removing underwater pipelines according to ~~Claim~~ claim 1, said apparatus comprising:

- cutting means ~~(4)~~ for cutting said underwater pipelines ~~(40)~~;
- recovery means ~~(3)~~ for recovering the cut sections ~~(41)~~ of ~~said lines (40)~~ the pipeline;

_____guiding means-(2) for positioning said cutting means-(4) and said recovery means-(3);

_____ suspension means-(1) for suspending said guiding means-(2), cutting means-(4) and recovery means-(3); and

_____ transferring means-(5) for transferring the recovered pipe sections-(41) to the loading compartment of a boat-(10), said transferring means being located on a suitable support comprising a plate-(6) arranged on the a deck of said boat-(10) opposite an opening-(12) formed in the a stern wall-(11) thereof.

3. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 2, in which wherein said suspension means ~~comprise~~ comprises a gantry-(1) comprising two uprights-(201) and a cross member-(101, 301) to which the hoisting means-(501, 506, 701, 706) for lowering and hoisting on-board said boat said guiding means-(2), said cutting means-(4) and said recovery means-(3) are connected, said gantry being arranged on said support plate-(6) along the an external edge directed towards said opening-(12) formed in the stern wall-(11).

4. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 3, in which wherein said uprights-(201) of said gantry-(1) are pivotably hinged-(221, 306) with said support plate and provided with actuating means-(106) which allow positioning of said gantry-(1) in a substantially cantilever manner with respect to the stern wall-(11) of said boat-(10).

5. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 3, in which wherein said gantry-(1), in the a vicinity of the cross member-(101), has connected thereto, in cantilever fashion, by means of the arms-(311), a beam-(301) which is parallel to and has substantially the same length as the cross member-(101).

6. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 5, in which ~~the~~ wherein deflection pulleys ~~(501, 701)~~ for the cables ~~(826, 726)~~ for suspension of the guiding means ~~(2)~~, recovery means ~~(3)~~ and cutting means ~~(4)~~ are arranged on the said cross member ~~(101)~~ and on the ~~said~~ beam ~~(301)~~.

7. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 2, in which wherein said guiding means ~~comprise~~ comprises a guide unit ~~(2)~~ comprising:
_____ a support base ~~(302)~~ provided with gripping means ~~(402)~~ for gripping said underwater pipeline ~~(40)~~,
_____ movement means ~~(502)~~ for moving said support base ~~(302)~~ along said ~~line~~ ~~(40)~~ pipeline, and
_____ a head-piece ~~(202)~~ mounted on a shaft ~~(602)~~ rotating on said support base ~~(302)~~, said head-piece being provided thereon with deflecting means ~~(242)~~ for deflecting ~~the~~ a cable ~~(726)~~ for connection with said suspension means ~~(1)~~, a floating body ~~(222)~~ and detecting means ~~(102)~~ for detecting the position of said underwater ~~line~~ ~~(40)~~ pipeline.

8. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 7, in which wherein said detecting means ~~comprise~~ comprises at least one videocamera ~~(122)~~ and a sonar ~~(112)~~.

9. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 8, in which wherein said head-piece is ~~furthermore~~ provided thereon with a compass ~~(252)~~ arranged in the visual field of the videocamera ~~(122)~~.

10. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 7, in which wherein said shaft ~~(602)~~ is located on a carriage ~~(612)~~ movable in the direction of the length of said support base ~~(302)~~ so as to position said head-piece ~~(202)~~ at one of the two ends of said support base ~~(302)~~.

11. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 7, ~~in which wherein~~ said support base ~~(302)~~ is provided, along its perimetral edges, with a plurality of nozzles ~~(312)~~ oriented perpendicularly with respect to the plane of travel of the cable ~~(726)~~ for suspending said guide unit ~~(2)~~ and able to eject pressurised fluid supplied by suitable means ~~(322)~~.
12. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 7, ~~in which wherein~~ said gripping means ~~comprise comprises~~ jaws ~~(402)~~ provided with suitable actuating means ~~(702, 712)~~ arranged in said support base ~~(302)~~.
13. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 7, in which said movement means ~~comprise comprises~~ elements suitable for displacement such as wheels or belts ~~(502)~~ arranged along the sides of said support base ~~(302)~~ with a mutual inclination preferably of ~~90~~ \square 90°.
14. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 2, ~~in which wherein~~ said recovery means ~~comprise comprises~~ a recovery unit ~~(3)~~ comprising gripping means ~~(103)~~ provided with a substantially rectangular box-shaped body ~~(113)~~, said box-shaped body ~~(113)~~ being connected to an upper frame ~~(603)~~ in which ~~the~~ deflecting means ~~(633)~~ for deflecting ~~the a~~ cable ~~(826)~~ connected to said suspension means by means of the tie-rods ~~(433, 513)~~ are arranged.
15. (Currently Amended) Apparatus ~~The apparatus~~ according to ~~Claim claim~~ 14, wherein said box-shaped body ~~(113)~~ having has arranged at one end, a beam ~~(503)~~ stably connected to said box-shaped body ~~(113)~~ at the ends of which two of the said tie-rods ~~(513)~~ are connected, and there being arranged longitudinally with respect to said box-shaped body ~~(113)~~, a guide ~~(303)~~ in which a slider ~~(413)~~ is movable, said slider being associated with a trapezium ~~(403)~~ perpendicular to said guide ~~(303)~~ at the ends of which two more of the said tie-rods ~~(433)~~ are connected.

16. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 14, in ~~which wherein~~ said upper frame is provided with two cantilever arms ~~(203)~~ arranged perpendicular to the plane of travel of the cable ~~(826)~~ for suspension of the recovery unit ~~(3)~~, provided with retraction means ~~(213, 223)~~ and provided at their free end ~~(253)~~ with means ~~(233, 243)~~ for engagement with said guide means ~~(2)~~, which are releasable.

17. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 2, in ~~which wherein~~ said cutting means ~~comprise comprises~~ a cutting unit ~~(4)~~ preferably ~~comprising an endlessly wound diamond coated cable (804) deflected around a plurality of pulleys (704, 604, 504), at least one of which (504) is motor driven and which are arranged so as to define a cutting plane perpendicular to the said underwater pipeline (40), said pulleys (704, 604, 504) being connected to a plate mounted slidably on at least one guide (204) and associated with actuating means (404, 414) for moving said plate (104) towards and away from said underwater line (40).~~

18. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 17, in ~~which wherein~~ said cutting unit ~~(4)~~ is mounted integrally with said recovery unit ~~(3)~~.

19. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~Claim claim~~ 2, in ~~which wherein~~ said transferring means for transferring the recovered pipe sections ~~(41)~~ ~~comprise comprises~~ a pipe-guiding arm ~~(5)~~ hinged with the an external edge of the support plate ~~(6)~~ directed towards the opening ~~(12)~~ in the stern wall ~~(11)~~ of the boat ~~(10)~~ and provided with actuating means ~~(405, 415)~~ for moving it the pipe-guiding arm from a position substantially perpendicular to the deck ~~(13)~~ of the boat ~~(10)~~ to a substantially parallel position and provided with means ~~(305)~~ for gripping the recovered pipe section ~~(41)~~ and means ~~(225)~~ for slidably guiding said section ~~(41)~~.

20. (New) The apparatus according to claim 17, wherein said cutting unit comprises:
an endlessly wound diamond-coated cable deflected around a plurality of pulleys, at least one of which is motor-driven and which are arranged so as to define a cutting plane perpendicular to the underwater pipeline, said pulleys being connected to a plate mounted slidably on at least one guide and associated with actuating means for moving said plate towards and away from said underwater line.